

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/002139

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ H02M3/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ H02M3/00-3/44, H02M7/00-7/44, H02J7/00-7/34

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2005
Kokai Jitsuyo Shinan Koho 1971-2005 Toroku Jitsuyo Shinan Koho 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X | JP 9-74748 A (Matsushita Electric Industrial Co., Ltd.), 18 March, 1997 (18.03.97), Par. Nos. [0023] to [0038]; Fig. 1 (Family: none) | 1-7 |
| A | JP 2003-333843 A (Matsushita Electric Industrial Co., Ltd.), 21 November, 2003 (21.11.03), Full text; all drawings (Family: none) | 1-7 |
| A | JP 2002-209339 A (Sony Corp.), 26 July, 2002 (26.07.02), Full text; all drawings (Family: none) | 1-7 |

 Further documents are listed in the continuation of Box C. See patent family annex.

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| * Special categories of cited documents: | |
| "A" document defining the general state of the art which is not considered to be of particular relevance | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
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| "O" document referring to an oral disclosure, use, exhibition or other means | "&" document member of the same patent family |
| "P" document published prior to the international filing date but later than the priority date claimed | |

Date of the actual completion of the international search
18 May, 2005 (18.05.05)Date of mailing of the international search report
07 June, 2005 (07.06.05)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| A | JP 2001-95139 A (Yazaki Corp.), 06 April, 2001 (06.04.01), Full text; all drawings & US 6594129 B1 | 1-7 |
| A | JP 2002-199715 A (Sanken Electric Co., Ltd.), 12 July, 2002 (12.07.02), Full text; all drawings (Family: none) | 1-7 |